

## CHAPTER IV

### FINDING & DISCUSSION

In this chapter, the data of this research were the result of the data analysis were presented. The findings of the research were obtained through the process of collecting the subjects data in listening nursery rhymes. In collecting the data, the researcher's findings of the research focused on pre-test, and post-test score analysis.

#### 4.1. FINDING

##### 4.1.1. The Result of Pre-test

This research was followed by one class, It consisted of twenty six students, the researcher took all of the students in the fourth grade as the sample of MI Mamba'ul Ulum Mantingan Jepara. The researcher gave them same questions in the tasks. There were ten questions each task. Here the result of pre- test:

**Table 4.1.1.**  
**Result of Pre-test**

No	Students Code	Score
1.	S-1	100
2.	S-2	80
3.	S-3	80
4.	S-4	70
5.	S-5	80
6.	S-6	10
7.	S-7	60

8.	S-8	30
9.	S-9	20
10.	S-10	60
11.	S-11	30
12.	S-12	90
13.	S-13	60
14.	S-14	70
15.	S-15	30
16.	S-16	20
17.	S-17	100
18.	S-18	50
19.	S-19	80
20.	S-20	20
21.	S-21	80
22.	S-22	100
23.	S-23	100
24.	S-24	10
25.	S-25	100
26.	S-26	50
$\sum x$		<b>1580</b>
<b>N</b>		<b>26</b>
<b>M</b>		<b>61</b>

#### 4.1.2. The Post-test Scores

After the researcher gave the students pre-test and some treatments, the researcher gave the students post-test to know the result of the research. It was the score of post-test .

**Table 4.1.2.**  
**Result of Post-test**

No	Students code	Score
1.	S-1	100
2.	S-2	80
3.	S-3	100
4.	S-4	80
5.	S-5	80
6.	S-6	100
7.	S-7	80
8.	S-8	50
9.	S-9	50
10.	S-10	100
11.	S-11	50
12.	S-12	100
13.	S-13	90
14.	S-14	100
15.	S-15	80
16.	S-16	60
17.	S-17	100

18.	S-18	60
19.	S-19	90
20.	S-20	30
21.	S-21	80
22.	S-22	100
23.	S-23	100
24.	S-24	100
25.	S-25	100
26.	S-26	60
$\sum x$		<b>2120</b>
<b>N</b>		<b>26</b>
<b>M</b>		<b>82</b>

Based on the pre-test result above, the total score was 1580 and they got mean 61. Furthermore, the total of post-test result score was 2120. The students got mean score 82. The result showed that there was an improvement in post-test result than pre-test.

#### 4.1.3. The Gained Scores

The gained scores was used to know the differences about the improvement score result between pre-test and post-test in the classroom. Actually, in one group pre-test post-test research did not use gained scores, because it was used to know the differences between control and experimen group. But, in this study, the researcher used gained score to know the differences between pre-test

and post-test scores. Table 4.1.3. below described the gained scores of pre-test and post-test of all the members of the class were 26 students.

**Table 4.1.3.  
The Gained Scores**

<b>No.</b>	<b>Students' Code</b>	<b>Pre-test</b>	<b>Post-test</b>	<b>Gained Scores</b>
1	S-1	100	100	0
2	S-2	80	80	0
3	S-3	80	100	20
4	S-4	70	80	10
5	S-5	80	80	0
6	S-6	10	100	90
7	S-7	60	80	20
8	S-8	30	50	20
9	S-9	20	50	30
10	S-10	60	100	40
11	S-11	30	50	20
12	S-12	90	100	10
13	S-13	60	90	30
14	S-14	70	100	30
15	S-15	30	80	50
16	S-16	20	60	40
17	S-17	100	100	0
18	S-18	50	60	10
19	S-19	80	90	10
20	S-20	20	30	10
21	S-21	80	80	0
22	S-22	100	100	0

23	S-23	100	100	0
24	S-24	10	100	90
25	S-25	100	100	0
26	S-26	50	60	10
$\Sigma$		<b>1580</b>	<b>2120</b>	<b>540</b>
<b>Mean</b>		<b>61</b>	<b>82</b>	<b>21</b>

The tabel data above described that the gained score after the researcher giving pre-test and post –test . The lowest gained score of the class was 0, whereas the highest score of the class was 90. Meanwhile, the mean of pre-test was 61, the mean of post-test was 82 and the mean of gained score was 20.

#### 4.2. The Comparison of The Result

**Table 4.2.**  
**Comparison Result**

No.	Pre-test ( $X_1$ )	Post-test ( $X_2$ )	$D = (X_2 - X_1)$	$D^2 = (X_2 - X_1)^2$
1	100	100	0	0
2	80	80	0	0
3	80	100	20	400
4	70	80	10	100
5	80	80	0	0
6	10	100	90	8100
7	60	80	20	400
8	30	50	20	400
9	20	50	30	900
10	60	100	40	1600
11	30	50	20	400

12	90	100	10	100
13	60	90	30	900
14	70	100	30	900
15	30	80	50	2500
16	20	60	40	1600
17	100	100	0	0
18	50	60	10	100
19	80	90	10	100
20	20	30	10	100
21	80	80	0	0
22	100	100	0	0
23	100	100	0	0
24	10	100	90	8100
25	100	100	0	0
26	50	60	10	100
$\Sigma$	<b>1580</b>	<b>2120</b>	<b>540</b>	<b>26800</b>
<b>Mean</b>	<b>61</b>	<b>82</b>	<b>21</b>	<b>1030</b>

### 4.3. The Data Analysis

This part was intended to answer the research question whether Nursery rhyme as media that effective to improve students' listening achievement at the fourth grade of MI Mamba'ul Ulum Mantingan or not. T-test was used to answer the research question and the researcher was conducted in the whole member of fourth class in this school.

The researcher made calculation of the scores of pre-test and post-test by using SPSS calculation. In order to see the comparison between result of pre-test and post-test, the researcher used t-test measurement of pre-test and

post-test scores. It was important to know whether there was significance difference between them. Beside that, the SPSS calculation was used to know whether alternative hypothesis ( $H_a$ ) was accepted or rejected. The t-test calculation can be seen as following table:

**Table 4.3.1.**  
**Statistical Computation of Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	60,7692	26	30,84452	6,04911
	Posttest	81,5385	26	20,91742	4,10224

**Table 4.3.2.**  
**Statistical Computation of Paired Samples Correlations**

		N	Correlation	Sig.
Pair 1	Pretest & Posttest	26	,593	,001

**Table 4.3.3**  
**Statistical Computation of Paired Sample Test**

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	Df	Sig. (2-tailed)
				Paired Differences				
				Lower	Upper			
Pretest – Posttest	-20,76923	24,96767	4,89656	-30,85389	-10,68457	-4,242	25	,000



The table data above described the result of research in SPSS calculation. It was described that there was a significant improvement from measurement score of pre-test and post-test result. Based on the Result of statistic calculation above the significance number was 0,000. It was described that there was significance improvement between pre-test and post-test score.

Meanwhile, the researcher also calculated the result of pre-test and post-test by using manual statistic that explained below:

$$t_0 = \frac{MD}{\frac{SE}{MD}}$$

To find out the mean of differences ( $MD$ ) between variable  $X_1$  and  $X_2$ , the researcher used this formula:

$$MD = \sum \frac{D}{N}$$

$$MD = \frac{540}{26}$$

$$MD = 20,8$$

Then, the researcher find out  $SE_{MD}$ , the researcher calculated the standard error from mean of differences ( $SE_{MD}$ ) between variable  $X_1$  and  $X_2$ :

$$SE_{MD} = \frac{SD_D}{\sqrt{N-1}}$$

$$SD_D = \sqrt{\frac{\sum D^2}{N} - \left[\frac{\sum D}{N}\right]^2}$$

$$SD_D = \sqrt{\frac{26800}{26} - \left[\frac{540}{26}\right]^2}$$

$$SD_D = \sqrt{1030 - [20,8^2]}$$

$$SD_D = \sqrt{1030 - 432,6}$$

$$SD_D = \sqrt{597,4}$$

$$SD_D = 24,4$$

After that the researcher find out the Standard error of mean differences:

$$SE_{MD} = \frac{SD_D}{\sqrt{N-1}}$$

$$SE_{MD} = \frac{24,4}{\sqrt{26-1}}$$

$$SE_{MD} = \frac{24,4}{\sqrt{25}}$$

$$SE_{MD} = \frac{24,4}{5}$$

$$SE_{MD} = 4,88$$

**The last calculation is determining the result of t observation ( $t_0$ ) of the test with formula:**

$$t_0 = \frac{MD}{SE_{MD}}$$

$$t_0 = \frac{20,8}{4,88}$$

$$t_0 = 4,3$$

The result was 4,3 indicated that there was a difference of degree as much as 4,3. Then, to complete the result of the research, the researcher finds out the degree of freedom ( $df$ ) with the formula:

$$df = N-1$$

$$df = 26-1$$

$$df = 25$$

$df = 25$  (see table of “t” value at the degree of significance of 5% and 1%) at degree of significance 5% = 2,066, at the degree of 1 % = 2,787. The result of analyzing the data by using the above formula shows that coefficient is 4,3. It means that there is a significance increase after the nursery rhyme is used to teach listening.

#### 4.4. Discussion

In this section, the researcher explained the result of research finding by using statistical calculation and summerized the hypothesis. The research was held to answer the question whether the use of nursery ryhmes as media in teaching listening at the fourth grade students of MI MAMBA’UL ULUM Mantingan or not. The researcher wrote the Alternative Hypothesis ( $H_a$ ) and the Null Hypothesis ( $H_o$ ) as follows:

- a. The Null hypothesis ( $H_o$ ): there was no significance differences of students’ listening ability who were taught by using nursery rhymes as media in their listening class.
- b. The Alternative Hypothesis ( $H_a$ ): there was significant difference of students’ listening ability who were thaught by using nursery rhymes as media in listening class.

To prove the hypothesis , the data obtained in pre-test and post-test were calculated by using  $t_{test}$  formula with assumption as follows:

- a. If the probability  $> 0,05$  the Null hypothesis ( $H_0$ ) was accepted and the alternative hypothesis ( $H_a$ ) was rejected. It was proved that nursery rhymes was not effective to improve students' listening skilll.
- b. If the probability  $< 0,05$  the Null hypothesis ( $H_0$ ) was rejected and the alternative hypothesis ( $H_a$ ) was accepted. It was proven that nursery rhymes was effective to improve students' listening skilll.

According to the analysis of result above, the probability of the result was 0,000, it was  $< 0,05$ . It was described that there was significant difference between the pre-test and post-test scores.